

What is Claimed is:

1. A method and system of wire bonding a semiconductor die to a lead, comprising the steps

of:

attaching a first end of a first bonding wire to a semiconductor die;

attaching a second end of the first bonding wire to an interposer pad;

attaching a first end of a second bonding wire to the interposer pad; and

attaching the second end of the second bonding wire to the lead.

2. The method and system of wire bonding a semiconductor die to a lead as recited in Claim 1, wherein the first bonding wire and second bonding wire are made of a gold-based material.

3. The method and system of wire bonding a semiconductor die to a lead as recited in Claim 1, wherein the second end of the first bonding wire and the first end of the second bonding wire are continuous so as to comprise a single bonding wire attached from the semiconductor die to the interposer pad and then to the lead.

4. The method and system of wire bonding a semiconductor die to a lead as recited in Claim 1, wherein the interposer pad is fabricated on an electro-less substrate.

5. The method and system of wire bonding a semiconductor die to a lead as recited in Claim 1, wherein the interposer pad has x-y dimensions of between approximately 58 micrometers to 88 micrometers along an x-axis and 88 micrometers to 125 micrometers along a y-axis.

6. The method and system of wire bonding a semiconductor die to a lead as recited in Claim 1, for use in ball grid array packages. 112

7. The method and system of wire bonding a semiconductor die to a lead as recited in Claim 1, for use in MicroStar® ball grid array packages. 112

5 8. A semiconductor device, comprising:  
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a semiconductor die disposed in a semiconductor package;  
a plurality of interposer pads on a substrate integral to the semiconductor package;  
a plurality of leads on the substrate integral to the semiconductor package;  
a plurality of bonding wires attached from the semiconductor die to the interposer pads and from the interposer pads to the leads, each interposer pad operable to accept a bonding wire from the semiconductor die and each lead being operable to accept a bonding wire from each interposer pad.

15 9. The semiconductor device as recited in Claim 8, wherein the plurality of bonding wires are comprised of a gold-based material.

cl 3/1/26 10. The semiconductor device as recited in Claim 8, wherein the substrate comprises an electro-less substrate.

SUB  
A3  
col 5  
line 1

11. The semiconductor device as recited in Claim 8, wherein each bonding wire between the semiconductor die and each interposer pad is attached to a bonding pad on the semiconductor die and each bonding wire between the interposer pad and the lead is attached to a ball bond on the interposer pad.

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12. The semiconductor device as recited in Claim 8, wherein the interposer pads are dimensioned from 58 micrometers to 88 micrometers along an x-axis and from 88 micrometers to 125 micrometers along a y-axis.

13. The semiconductor device as recited in Claim 8, wherein the semiconductor package comprises a ball grid array.

14. The semiconductor device as recited in Claim 8, wherein the semiconductor package comprises a MicroStar® ball grid array package.

15. The semiconductor device as recited in Claim 8, wherein an interposer pad electrically floats on the substrate.

16. A method of fabricating a semiconductor device, comprising:  
attaching a semiconductor die having input, output, supply and ground nodes, to a  
semiconductor package having a plurality of leads and a plurality of interposer pads;  
coupling the input, output, supply and ground nodes on the semiconductor die to the  
plurality of interposer pads with a first plurality of bonding wires; and  
coupling the plurality of interposer pads to the plurality of leads with a second plurality of  
bonding wires.
17. The method of fabricating a semiconductor device as recited in Claim 16, wherein the first  
and second plurality of bonding wires are comprised of a gold-based material.
18. The method of fabricating a semiconductor device as recited in Claim 16, wherein the  
plurality of interposer pads electrically float on the semiconductor package.
19. The method of fabricating a semiconductor device as recited in Claim 16, wherein the  
semiconductor package interposer pads are fabricated on an electro-less substrate.
20. The method of fabricating a semiconductor device as recited in Claim 16, wherein the  
placement of the interposer pads are operable to reduce wire sweep.
21. The method of fabricating a semiconductor device as recited in Claim 16, wherein the  
semiconductor package comprises a ball grid array.